

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-52. (Cancelled)

53. (Currently amended) A lysate obtainable by a process comprising the steps:

(a) inducing necrosis of NM-F9 tumor cells (Accession No. DSM ACC 2606) or NM-D4 tumor cells (Accession No. DSM ACC 2605) by subjecting the cells to a temperature of more than 41.2°C for at least 15 minutes; and

(b) lysing said necrotic tumor cells so as to obtain a lysate that is capable of inducing a humoral immune response against the TF antigen.

54. (Previously presented) Dendritic cells loaded with the lysate of claim 53.

55. (Previously presented) A composition comprising the lysate of claim 53.

56. (Previously presented) A composition comprising the dendritic cells of claim 54.

57. (Previously presented) A vaccine comprising the lysate of claim 53.

58. (Previously presented) A vaccine comprising the dendritic cells of claim 54.

59. (Previously presented) The dendritic cells of claim 54, wherein said dendritic cells are immature.

60. (Previously presented) The dendritic cells of claim 54, wherein said dendritic cells are mature.

61-62. (Cancelled)

63. (Previously presented) The lysate of claim 53, wherein induction of necrosis is achieved by incubating said tumor cells at a temperature in the range of 45°C to 55°C.

64. (Previously presented) The dendritic cells of claim 54, wherein induction of necrosis is achieved by incubating said tumor cells at a temperature in the range of 45°C to 55°C.

65. (Previously presented) The lysate of claim 53, wherein induction of necrosis is achieved by incubating said tumor cells at a temperature in the range of 45.5°C to 47°C.

66. (Previously presented) The dendritic cells of claim 54, wherein induction of necrosis is achieved by incubating said tumor cells at a temperature in the range of 45.5°C to 47°C.

67. (Previously presented) The lysate of claim 53, wherein the induction of necrosis is performed in the range of 2 to 3 hours.

68. (Previously presented) The dendritic cells of claim 54, wherein the induction of necrosis is performed in the range of 2 to 3 hours.

69. (Previously presented) The lysate of claim 53, wherein more than 40% of the tumor cells are necrotic after induction of necrosis.

70. (Previously presented) The dendritic cells of claim 54, wherein more than 40% of the tumor cells are necrotic after induction of necrosis.

71. (Previously presented) The lysate of claim 53, wherein more than 70% of the tumor cells are necrotic after induction of necrosis.

72. (Previously presented) The dendritic cells of claim 54, wherein more than 70% of the tumor cells are necrotic after induction of necrosis.

73. (Previously presented) The lysate of claim 53, wherein the tumor cells are genetically engineered, mutated or infected by oncogenic viruses.

74. (Previously presented) The dendritic cells of claim 54, wherein the tumor cells are genetically engineered, mutated or infected by oncogenic viruses.

75-80. (Cancelled)

81. (Previously presented) The lysate of claim 53, wherein less than 33% of said tumor cells express membrane-bound HSP 70 protein and at least 16% of said tumor cells are necrotic after the cells are subjected to a temperature of more than 41.2°C for at least 15 minutes.

82. (Previously presented) The lysate of claim 53, wherein the induction of necrosis is performed in the range of 2 to 24 hours.

83. (Previously presented) The lysate of claim 53, wherein:

(a) after the cells are subjected to a temperature of more than 41.2°C for at least 15 minutes, fewer tumor cells are positive for membrane-bound HSP 70 protein than tumor cells treated at a temperature of 41.2°C or lower; and

(b) more tumor cells are necrotic after the cells are subjected to a temperature of more than 41.2°C for at least 15 minutes than cells subjected to a temperature of 41.2°C or lower.

84. (Previously presented) The lysate of claim 53, wherein:

(a) after the cells are subjected to a temperature of 45°C to 55°C for at least 15 minutes, fewer tumor cells are positive for membrane-bound HSP 70 protein than tumor cells treated at a temperature lower than 45°C or higher than 55°C; and

(b) more tumor cells are necrotic after the cells are subjected to a temperature of 45°C to 55°C for at least 15 minutes than cells subjected to a temperature of lower than 45°C or higher than 55°C.

85. (Previously presented) The lysate of claim 53, wherein:

(a) after the cells are subjected to a temperature of 45°C to 47.5°C for at least 15 minutes, fewer tumor cells are positive for membrane-bound HSP 70 protein than tumor cells treated at a temperature lower than 45°C or higher than 47.5°C; and

(b) more tumor cells are necrotic after the cells are subjected to a temperature of 45°C to 47.5°C for at least 15 minutes than cells subjected to a temperature of lower than 45°C or higher than 47.5°C.

86. (Previously presented) The dendritic cells of claim 54, wherein the induction of necrosis is performed in the range of 2 to 24 hours.

87. (Previously presented) The lysate of claim 63, wherein less than 33% of said tumor cells express membrane-bound HSP 70 protein and at least 16% of said

tumor cells are necrotic after the cells are subjected to a temperature in the range of 45°C to 55°C for at least 15 minutes.

88. (Previously presented) The dendritic cells of claim 64, wherein less than 33% of said tumor cells express membrane-bound HSP 70 protein and at least 16% of said tumor cells are necrotic after the tumor cells are subjected to a temperature in the range of 45°C to 55°C for at least 15 minutes.

89. (Previously presented) The lysate of claim 65, wherein less than 33% of said tumor cells express membrane-bound HSP 70 protein and at least 16% of said tumor cells are necrotic after the cells are subjected to a temperature in the range of 45.5°C to 47°C for at least 15 minutes.

90. (Previously presented) The dendritic cells of claim 66, wherein less than 33% of said tumor cells express membrane-bound HSP 70 protein and at least 16% of said tumor cells are necrotic after the tumor cells are subjected to a temperature in the range of 45.5°C to 47°C for at least 15 minutes.

91. (Previously presented) The lysate of claim 69, wherein less than 33% of said tumor cells express membrane-bound HSP 70 protein after the cells are subjected to a temperature of more than 41.2°C for at least 15 minutes.

92. (Previously presented) The lysate of claim 71, wherein less than 33% of said tumor cells express membrane-bound HSP 70 protein after the cells are subjected to a temperature of more than 41.2°C for at least 15 minutes.

93. (Previously presented) The dendritic cells of claim 70, wherein less than 33% of said tumor cells express membrane-bound HSP 70 protein after the tumor cells are subjected to a temperature of more than 41.2°C for at least 15 minutes.

94. (Previously presented) The dendritic cells of claim 72, wherein less than 33% of said tumor cells express membrane-bound HSP 70 protein after the tumor cells are subjected to a temperature of more than 41.2°C for at least 15 minutes.

95. (Currently amended) A lysate obtainable by a process comprising the steps:
(a) inducing necrosis of NM-F9 tumor cells (Accession No. DSM ACC 2606) or NM-D4 tumor cells (Accession No. DSM ACC 2605) by subjecting the cells to a temperature of 42.4°C or higher for at least 15 minutes; and

(b) lysing said necrotic tumor cells so as to obtain a lysate that is capable of inducing a humoral immune response against the TF antigen.

96. (Previously presented) The lysate of claim 95, wherein less than 33% of said tumor cells express membrane-bound HSP 70 protein and at least 16% of said tumor cells are necrotic after the cells are subjected to a temperature of 42.4°C or higher for at least 15 minutes.

97. (Previously presented) Dendritic cells loaded with the lysate of claim 95.

98. (Currently amended) The dendritic cells of claim 97 [[96]], wherein less than 33% of said tumor cells express membrane-bound HSP 70 protein and at least 16% of said tumor cells are necrotic after the tumor cells are subjected to a temperature of 42.4°C or higher for at least 15 minutes.

99. (Previously presented) The lysate of claim 95, wherein:

(a) after the cells are subjected to a temperature of 42.4°C or higher for at least 15 minutes, fewer tumor cells are positive for membrane-bound HSP 70 protein than tumor cells treated at a temperature lower than 42.4°C; and

(b) more tumor cells are necrotic after the cells are subjected to a temperature of 42.4°C or higher for at least 15 minutes than cells subjected to a temperature lower than 42.4°C.